

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Methodist Medical Center of Illinois
Attn: Terry Schadt
221 Northeast Glen Oak Avenue
Peoria, Illinois 61636

Application No.: 98110039

I.D. No.: 143065AEL

Applicant's Designation:

Date Received: December 9, 2004

Subject: Medical Center

Date Issued:

Expiration Date:

Location: 415 St. Marks Court, 900 Main Street, 112 Crescent Street and 221
Northeast Glen Oak Avenue, Peoria

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of nine (9) natural gas-fired boilers with three (3) having fuel oil backup, three (3) emergency generators, one (1) ETO sterilizer, one (1) fume hood, and two (2) fuel oil storage tanks pursuant to the above-referenced application.

This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year of nitrogen oxides (NO_x) and 100 tons/year of sulfur dioxide (SO₂)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. This permit is issued based on emissions of particulate matter (PM) from the use of liquid fuel in any fuel combustion emission unit not to exceed 0.1 lb/mmBtu, pursuant to 35 Ill. Adm. Code 212.206.
- 3a. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm, pursuant to 35 Ill. Adm. Code 214.301.
- b. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), No person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hour), burning liquid fuel exclusively to exceed 0.3 lbs of sulfur dioxide per mmBtu of actual heat input when distillate fuel oil is burned. For this purpose, the sulfur content in the diesel fuel shall not exceed 0.3% by weight.

- 4a. Emissions and operation of the 9 boilers shall not exceed the following limits:

#2 Oil Sulfur Content (Wt. %)		Boiler Fuel Usage				3 Boilers Burning Fuel Oil			
		Natural Gas		Fuel Oil					
		(mmscf/Mo)		(mmscf/Yr)		(kgal/Mo)		(kgal/Yr)	
0.3		51		505		40		400	

Boiler Emissions									
SO ₂		NO _x		CO		VOM		PM	
(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
0.85	8.5	3.2	32	2.3	22.7	0.1	1.2	0.5	0.44

These limits are based on standard AP-42 emission factors and SO₂ is also based on 35 Ill. Adm. Code 214.122(b) (2). Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Emissions from the 3 emergency generators shall not exceed the following limits:

#2 Fuel Oil Sulfur Content (Wt. %)	Emission Factor (Lb/hp-Hr)	Pollutant	Emissions	
			(Tons/Mo)	(Tons/Yr)
0.3	0.024	NO _x	2.5	24.9
	0.0055	CO	0.6	5.7
	0.3 (Lb/mmBtu)	SO ₂	0.24	2.4
		VOM	0.05	0.44
		PM	0.05	0.44
Operating Hours for Each (Hours/Year)	Total Maximum Firing Rate (mmBtu/Hour)	Total Braking Horsepower		
500	31.9	4,462		

These limits define the actual emissions. NO_x, CO, SO₂, PM and VOM emissions are based on standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 5a. At the above location, the Permittee shall not keep, store, or utilize distillate fuel oil (Grades No. 1 and 2) with a sulfur content greater than the larger of the following two values:

- i. 0.28 weight percent, or

- ii. The wt. percent given by the formula: Maximum wt. percent sulfur
= $(0.000015) \times (\text{Gross heating value of oil, Btu/lb})$.
- b. Organic liquid by products or waste materials shall not be used in the diesel-powered emergency generator without written approval from the Illinois EPA.
- c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- d. The Permittee shall notify the Illinois EPA prior to any change in the type of fuel used at the source.
- e. The Permittee shall keep a maintenance and repair log for each emergency generator, listing significant activities performed with date.
- f. Natural gas shall be the only fuel fired in 6 of the boilers, and the other 3 boilers and 3 emergency generators shall be allowed to burn #2 fuel oil or natural gas. Use of any other fuel requires a permit change.
- 6. This permit is issued based on negligible usage and emissions of volatile organic material (VOM) from the ETO sterilizer and the fume hood. For this reason, usage and emissions of VOM from each shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year.
- 7. The Permittee shall maintain monthly records of the following items:
 - a. Amount of ETO used (lb/month and lb/year);
 - b. Amount of solvent used in fume hood (tons/month and tons/year);
 - c. Natural gas usage (mmscf/month and mmscf/year), and #2 oil used (gallons/month and gallons/year) in 18 boilers;
 - d. Hours of operation for each generator (hour/month and hour/year);
 - e. Records of the sulfur content of #2 fuel oil for each shipment of fuel oil received, percent by weight; and
 - f. PM, VOM, NO_x, CO and SO₂ emissions with supporting calculations (tons/month and tons/year).
- 8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

9. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

Please note that the 2 oil storage tanks are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(n)(3).

Please also note that the 4 locations listed on the first page of this permit, previously having I.D. #'s 143065AQA, 143065AQB, 143065AWZ and 143065AEL, are considered support facilities, and therefore, are considered one source and have been incorporated into this permit.

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RBS:psj

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the medical center operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels, e.g., 100 tons/year of NO_x and SO₂ at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Equipment</u>	<u>NO_x</u> <u>(T/Yr)</u>	<u>SO₂</u> <u>(T/Yr)</u>	<u>CO</u> <u>(T/Yr)</u>	<u>VOM</u> <u>(T/Yr)</u>	<u>PM</u> <u>(T/Yr)</u>						
18 Boilers	32.0	8.5	22.7	1.2	0.44						
3 Generators	24.9	2.4	5.7	0.44	0.44						
Fume Hood				0.44							
ETO Sterilizer				0.44							
Totals:	56.9	+	10.9	+	28.4	+	2.5	+	0.88	+	99.6 Tons/Yr

RBS:psj